IN THE CLAIMS:

Please amend the claims as follows:

1. (currently amended) A method for producing an optical component of quartz glass, said method comprising:

elongating a **first** coaxial arrangement of a **first** core rod and a hollow cylinder **structure** of a predetermined length, wherein the **first** coaxial arrangement is supplied in vertical orientation to a heating zone and is softened therein zonewise, starting with a lower end thereof, and the component is drawn off downwards from a softened region, the hollow cylinder **structure** having an inner bore therein, and in a region of the lower end being provided with a constriction in the inner bore on which the **first** core rod is supported, wherein

a) **a** ~~**the**~~ first upper hollow cylinder is fused at an end thereof with a second lower hollow cylinder so as to form **the hollow cylinder structure as** an axial cylinder composite,

b) the **first** core rod is introduced into the lower hollow cylinder and the axial cylinder composite is supplied to the heating zone, starting with **a** ~~**its**~~ lower end **thereof**, and is softened therein zonewise and elongated so as to form the optical component,

c) a drawing bulb being formed as said axial cylinder composite is softened and elongated, said drawing bulb progressing in the cylinder composite to the first upper hollow

cylinder, wherein, within said drawing bulb, the inner bore is collapsed at least in part, so as to produce ~~the~~ **a second** constriction of the inner bore,

d) the first upper hollow cylinder is separated at a separation plane in an area of the **second** constriction therein from the ~~withdrawn~~ optical component so that the separated first upper hollow cylinder has the **second** constriction at an end thereof, and

e) the first upper hollow cylinder is subsequently combined with a second core rod supported on the **second** constriction in a second coaxial arrangement, and the second coaxial arrangement is elongated so as to produce a second optical component.

2. (previously presented) The method according to claim 1, wherein the first upper hollow cylinder is subsequently used as a second lower hollow cylinder in a second axial cylinder composite.

3. (currently amended) The method according to claim 1, wherein the **first** upper hollow cylinder is used in the elongation process for holding the **second** lower hollow cylinder.

4. (currently amended) The method according to claim 1 wherein the **second** constriction in the area of the separation plane has an axially continuous opening.

5. (previously presented) The method according to claim 1 wherein the elongation process

comprises a drawing phase and a drawing end phase, and wherein during the drawing phase a negative pressure is produced in the inner bore relative to an externally applied pressure.

6. (previously presented) The method according to claim 5, wherein the pressure in the inner bore is increased in the drawing end phase.

7. (previously presented) The method according to claim 6, wherein the pressure in the inner bore is increased in the drawing end phase to a value in the range of an ambient pressure +/-50 mbar.

8. (currently amended) The method according to claim 1, wherein a plunger which has a smaller outer diameter than the **first** core rod is used in the inner bore above the **first** core rod.

9. (currently amended) The method according to claim 1 wherein **an** ~~**the**~~ upper end of the **first** core rod extends into the inner bore of the upper hollow cylinder.

10. (currently amended) The method according to claim 9, wherein the upper end of the **first** core rod extends up and into a region of half the length of the **first** upper hollow cylinder.

11. (currently amended) The method according to claim 1 wherein at least one of the **first** upper hollow cylinder and the **second** lower hollow cylinder has at least one of a beveled inner diameter and a beveled outer diameter.

12. (currently amended) The method according to claim 1 wherein the **first** upper hollow cylinder and **second** lower hollow cylinder have inner diameters that differ by not more than +/- 2 mm from each other, and the **first** upper hollow cylinder and **second** lower hollow cylinder have outer diameters that differ by not more than +/-3 mm from each other.

13. (previously presented) The method according to claim 1 wherein the inner bore of the first upper hollow cylinder is mechanically machined to a final dimension.

14. (currently amended) The method according to claim 2, wherein the **second** constriction in an area of the separation plane has an axially continuous opening.

15. (currently amended) The method according to claim 3, wherein the **second** constriction in an area of the separation plane has an axially continuous opening.

16. (currently amended) The method according to claim 2, wherein **an** ~~**the**~~ upper end of the **first** core rod extends into the inner bore of the **first** upper hollow cylinder.

17. (currently amended) The method according to claim 3, wherein **an** ~~**the**~~ upper end of the **first** core rod extends into the inner bore of the **first** upper hollow cylinder.

18. (currently amended) The method according to claim 4, wherein **an** ~~**the**~~ upper end of the **first** core rod extends into the inner bore of the **first** upper hollow cylinder.

19. (currently amended) The method according to claim 2, wherein the **first** upper hollow cylinder and/or the **second** lower hollow cylinder has an inner diameter and/or an outer diameter that is beveled.

20. (currently amended) The method according to claim 3, wherein the **first** upper hollow cylinder and/or the **second** lower hollow cylinder has an inner diameter and/or an outer diameter that is beveled.

21. (currently amended) The method according to claim 4, wherein the **first** upper hollow cylinder and/or the **second** lower hollow cylinder has an inner diameter and/or an outer diameter that is beveled.